

WHAT IS CLAIMED IS:

1. An information processing apparatus connected to a network, comprising:

requesting means for transmitting a search request for searching a device on the network to the network;

receiving means for receiving a search result corresponding to the search request;

displaying means for displaying a device included in the search result;

operating means for setting hierarchical location information of the searched device in accordance with the displayed search result, the hierarchical location information representing a location of the device in a hierarchical data structure; and

transmitting means for transmitting the set hierarchical location information to the corresponding device.

2. An information processing apparatus according to claim 1, further comprising storing means for storing a plurality set of map data corresponding to each hierarchical level of the hierarchical location information, wherein said operating means, responsive to a selection of one set of map data from the plurality set of map data, for setting the hierarchical location information corresponding to the selected map data to the device.

3. An information processing apparatus according to claim 2, wherein said displaying means displays icon data corresponding to the searched device, and said operating means, responsive to a selection of the icon data and map data, sets the hierarchical location information corresponding to the selected map data to the device corresponding to the device icon.

4. An information processing apparatus according to claim 3, wherein the hierarchical location information includes coordinate information representative of a location in an area of corresponding map data, and said operating means, responsive to disposing the selected icon data at the location in the area of the map data, sets the coordinate information of the location to the device corresponding to the selected device icon.

5. An information processing apparatus connected to a network, comprising:
requesting means for transmitting a search request for searching a device on the network to the network;
receiving means for receiving a search result corresponding to the search request, the search result including hierarchical location information representing a location of a searched device in a hierarchical data structure;

operating means for changing the hierarchical location information of the searched device; and

5 transmitting means for transmitting the changed hierarchical location information to the corresponding device.

7. An information processing apparatus according to claim 6, wherein said displaying means displays icon data corresponding to the searched device, and said operating means, responsive to a selection of the icon data and map data, sets the hierarchical location information corresponding to the selected map data to the device corresponding to the device icon.

8. An information processing apparatus according

to claim 7, wherein the hierarchical location information includes coordinate information representative of a location in an area of corresponding map data, and said operating means,
5 responsive to disposing the selected icon data at the location in the area of the map data, sets the coordinate information of the location to the device corresponding to the selected device icon.

10 9. An information processing apparatus according to claim 7, wherein said displaying means displays a device not registering the hierarchical location information among searched devices, in a discriminable manner.

15 10. A device for processing a job requested via a network, comprising:

storing means for storing hierarchical location information representing a location of the device in a
20 hierarchical data structure, the hierarchical location information having a plurality set of hierarchical data logically distinguished;

transmitting means for transmitting stored static attribute information and the hierarchical location
25 information to the network in order to search the device; and

controlling means, responsive to a reception of

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the hierarchical location information from the network,
for storing the received hierarchical location
information in said storing means.

- 5 11. A network system having at least one
information processing apparatus and a plurality of
devices, wherein:
- the information processing apparatus comprises:
- requesting means for transmitting a search request
10 for searching a device on the network to the network;
receiving means for receiving a search result
corresponding to the search request, the search result
including hierarchical location information
representing a location of a searched device in a
15 hierarchical data structure;
displaying means for displaying the searched
device included in the search result;
operating means for changing the hierarchical
location information of the searched device; and
20 transmitting means for transmitting the changed
hierarchical location information to the corresponding
device;
and the device comprises:
controlling means for storing the hierarchical
25 location information received from the information
processing apparatus in a memory and transmitting the
stored hierarchical location information to the

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0	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

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and the device comprises:

controlling means for storing the changed
attribute information received from the second
information processing apparatus in a memory and
transmitting the stored, changed attribute information
to the first information processing apparatus,

and wherein the first information processing
apparatus updates contents of the directory database
when the changed attribute information is received from
the device.

13. A network system according to claim 12,
wherein the changed attribute information includes the
hierarchical location information.

14. An information processing method comprising:
a requesting step of transmitting a search request
for searching a device on the network to the network;
a receiving step of receiving a search result
corresponding to the search request;
a displaying step of displaying a device included
in the search result;
an operating step of setting hierarchical location
information of the searched device in accordance with
the displayed search result, the hierarchical location
information representing a location of the device in a
hierarchical data structure; and

a transmitting step of transmitting the set hierarchical location information to the corresponding device.

5 15. An information processing method according to claim 14, further comprising a storing step of storing a plurality set of map data corresponding to each hierarchical level of the hierarchical location information, wherein said operating step, responsive to
10 a selection of one set of map data from the plurality set of map data, setting the hierarchical location information corresponding to the selected map data to the device.

15 16. An information processing method according to claim 15, wherein said displaying step displays icon data corresponding to the searched device, and said
operating step, responsive to a selection of the icon data and map data, sets the hierarchical location
20 information corresponding to the selected map data to the device corresponding to the device icon.

25 17. An information processing method according to claim 16, wherein the hierarchical location information includes coordinate information representative of a location in an area of corresponding map data, and said operating step, responsive to disposing the selected

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icon data at the location in the area of the map data, sets the coordinate information of the location to the device corresponding to the selected device icon.

- 5 18. An information processing method comprising:
a requesting step of transmitting a search request for searching a device on the network to the network;
a receiving step of receiving a search result corresponding to the search request, the search result
10 including hierarchical location information representing a location of a searched device in a hierarchical data structure;
a displaying step of displaying the searched device included in the search result;
15 an operating step of changing the hierarchical location information of the searched device; and
a transmitting step of transmitting the changed hierarchical location information to the corresponding device.

- 20 19. An information processing method according to claim 18, further comprising a storing step of storing a plurality set of map data corresponding to each hierarchical level of the hierarchical location
25 information, wherein said operating step, responsive to a selection of one set of map data from the plurality set of map data, sets the hierarchical location

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information corresponding to the selected map data to the device.

20. An information processing method according to claim 19, wherein said displaying step displays icon data corresponding to the searched device, and said operating step, responsive to a selection of the icon data and map data, sets the hierarchical location information corresponding to the selected map data to the device corresponding to the device icon.

21. An information processing method according to claim 20, wherein the hierarchical location information includes coordinate information representative of a location in an area of corresponding map data, and said operating step, responsive to disposing the selected icon data at the location in the area of the map data, sets the coordinate information of the location to the device corresponding to the selected device icon.

22. An information processing method according to claim 20, wherein said displaying step displays a device not registering the hierarchical location information among searched devices, in a discriminable manner.

23. A control method for a device for processing

a job requested via a network, comprising:

a storing step of storing hierarchical location information representing a location of the device in a hierarchical data structure, the hierarchical location information having a plurality set of hierarchical data logically distinguished;

a transmitting step of transmitting stored static attribute information and the hierarchical location information to the network in order to search the device; and

a controlling step, responsive to a reception of the hierarchical location information from the network, of storing the received hierarchical location information in said storing means.

24. A device search method for a network system having at least one information processing apparatus and a plurality of devices, wherein:

the information processing apparatus comprises:

a requesting step of transmitting a search request for searching a device on the network to the network;

a receiving step of receiving a search result corresponding to the search request, the search result including hierarchical location information

representing a location of a searched device in a hierarchical data structure;

a displaying step of displaying the searched

device included in the search result;

an operating step of changing the hierarchical location information of the searched device; and

5 a transmitting step of transmitting the changed hierarchical location information to the corresponding device;

and the device comprises:

10 a controlling step of storing the hierarchical location information received from the information processing apparatus in a memory and transmitting the stored hierarchical location information to the network.

25. A device search method for a network system
15 having first and second information processing apparatuses and a plurality of devices, wherein:

the first information processing apparatus comprises:

20 a managing step of managing a directory database registering a plurality set of attribute information corresponding to devices on a network, the database storing, as the attribute information, hierarchical location information representing a location of the device on the network in a hierarchical data structure;
25 and

a searching step, responsive to a search request from the second information processing apparatus, of

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searching the device from the directory database and
transmitting a search result to the second information
processing apparatus, the search result including the
hierarchical location information of the searched
5 result;

the second information processing apparatus
comprises:

an operating step of changing attribute
information of the searched device; and

10 a transmitting step of transmitting the changed
attribute information to the corresponding device;

and the device comprises:

a controlling step of storing the changed
attribute information received from the second
15 information processing apparatus in a memory and
transmitting the stored, changed attribute information
to the first information processing apparatus,

and wherein the first information processing
apparatus updates contents of the directory database
20 when the changed attribute information is received from
the device.

26. A device search method according to claim 25,
wherein the changed attribute information includes the
25 hierarchical location information.

27. A storage medium storing an information

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processing program, the information processing program comprising:

a requesting step of transmitting a search request for searching a device on the network to the network;

5 a receiving step of receiving a search result corresponding to the search request;

a displaying step of displaying a device included in the search result;

10 an operating step of setting hierarchical location information of the searched device in accordance with the displayed search result, the hierarchical location information representing a location of the device in a hierarchical data structure; and

15 a transmitting step of transmitting the set hierarchical location information to the corresponding device.

20 ~~28.~~ A storage medium storing an information processing program, the information processing program comprising:

a requesting step of transmitting a search request for searching a device on the network to the network;

25 a receiving step of receiving a search result corresponding to the search request, the search result including hierarchical location information representing a location of a searched device in a hierarchical data structure;

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an operating step of changing the hierarchical location information of the searched device; and

29. A storage medium storing an information processing program to be executed by a computer of a device for processing a job requested via a network, the information processing program comprising:

15 a storing step of storing hierarchical location information representing a location of the device in a hierarchical data structure, the hierarchical location information having a plurality set of hierarchical data logically distinguished;

20 a transmitting step of transmitting stored static
attribute information and the hierarchical location
information to the network in order to search the
device; and

a controlling step, responsive to a reception of the hierarchical location information from the network, of storing the received hierarchical location information in said storing means.